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10/775,824	02/09/2004	Andy Leung	SMC1P021/6355-72	8178

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EXAMINER	
NGUYEN, LE V	
ART UNIT	PAPER NUMBER
2174	
MAIL DATE	DELIVERY MODE
11/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/775,824	LEUNG ET AL.	
	Examiner	Art Unit	
	Le Nguyen	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-65* is/are pending in the application.

4a) Of the above claim(s) *1-13,33-47,56-60 and 62* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-32,48-55,61 and 63-65* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to an amendment filed 9/10/07.

2. Claims 1-13, 33-47, 56-60 and 62 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions Groups I and III, there being no allowable generic or linking claim. Applicant traversed the restriction (election) requirement on 2/2/07. Applicant's election with traverse of Inventions Group II. Because these inventions are distinct and have acquired separate status in the art as evident by their different classification and divergent subject matter, the restriction is maintained. The status of the claims are:

Claims 1-65 are pending in this application; and, claims 1, 14, 33, 43, 48, 51-56 and 60-62 are independent claims. Claims 1-13, 33-47, 56-60 and 62 are withdrawn. Claims 64-65 have been newly added; and, claims 14, 17, 19-25, 29-32, 48 and 61 have been amended. This action is made Final.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 14-19, 48-53 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gay et al. ("Gay") in view of Harrington.

As per claim 14, although Gay teaches a method of creating a connecting link between source and destination visual objects comprising determining a region interior

of the peripheral boundary of each visual object to be joined and a connecting path extending between the determined regions (fig. 6), the connecting path terminates at the locations where the connecting path intersects the source and destination visual objects and extending a connecting link between the source and destination visual objects terminating at the locations (fig. 6; *displayed is a connecting link between a source such as 78 and destination visual objects such as 76, the connecting link terminates at the locations where the connecting path intersects 78 and where the connecting path intersects 76; determining a region interior the peripheral boundary to connect the objects*), Gay does not explicitly disclose clipping. Harrington teaches clipping (col. 1, lines 22-56; *e.g. clipping line segments to display only the portion of interest to the user*). It would have been obvious to an artisan at the time of the invention to incorporate the method of Harrington with the method of Gay in order to present to the user only that portion which is of interest.

As per claim 15, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the region is a point within each visual object (Gay: fig. 6).

As per claim 16, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the point is the center of each visual object (Gay: fig. 6; col. 4, lines 53-60; *wherein fig. 6 has the constraint relationships set forth in fig. 4A*).

As per claim 17, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a self-

loop and wherein during the clipping, the self-loop is traversed in clockwise and anti-clockwise directions to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56)

As per claim 18, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a curved line and wherein during the clipping, the curved line is flattened and represented by a series of straight line segments, each straight line segment being traversed to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

As per claim 19, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a self-loop and wherein during the clipping, the self-loop is traversed in clockwise and anti-clockwise directions to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

Claims 48 and 61 are individually similar in scope to claim 14 and are therefore rejected under similar rationale.

Claim 49 is similar in scope to claim 15 and is therefore rejected under similar rationale.

Claim 50 is similar in scope to claim 16 and is therefore rejected under similar rationale.

Claim 51 is similar in scope to claim 17 and is therefore rejected under similar rationale.

Claim 52 is similar in scope to claim 18 and is therefore rejected under similar rationale.

Claim 53 is similar in scope to claim 19 and is therefore rejected under similar rationale.

5. Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gay et al. ("Gay") in view of Harrington as applied to claim 17, and further in view of Hansen et al. ("Hansen").

As per claim 20, although the modified Gay teaches a method of creating a connecting link between source and destination visual objects (Gay: fig. 6), the modified Gay does not explicitly disclose placing an arrowhead on at least one end of the connecting link, the arrowhead having a tip terminating at the location, the connecting link/connector terminating at a backend of the arrowhead. Hansen teaches a method of creating a connecting link/connector between source and destination visual objects comprising placing an arrowhead on at least one end of the connecting link, the arrowhead having a tip terminating at the location, the connecting link terminating at a backend of the arrowhead (fig. 4; col. 8, lines 9-15). It would have been obvious to an artisan at the time of the invention to incorporate the method of Hansen with the method of the modified Gay in order to indicate a transition direction.

As per claim 21, the modified Gay teaches a method of creating a connecting link between source and destination visual objects comprising placing an arrowhead at each end of the connector (Hansen: fig. 4; col. 8, lines 9-15).

As per claim 22, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a straight line and wherein during the clipping, the straight line is traversed to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

As per claim 23, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a curved line and wherein during the clipping, the curved line is flattened and represented by a series of straight line segments, each straight line segment being traversed to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

As per claim 24, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a self-loop and wherein during the clipping, the self-loop is traversed in clockwise and anti-clockwise directions to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

6. Claims 25-27, 29-32, 54, 55, 63 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gay et al. ("Gay") in view of Harrington as applied to claims 17 and 50, and further in view of Schuster et al. ("Schuster").

As per claim 25, although the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting link is represented by a line (Gay: fig. 6), the modified Gay does not explicitly disclose the connecting link/connector being represented by a plurality of spaced shapes. Schuster teaches a connecting link is represented by a plurality of spaced shapes (Abstract; figs. 9A-10B). It would have been obvious to an artisan at the time of the invention to incorporate the method of Schuster with the method of the modified Gay so that shapes can be produced with only a minimal amount of user time.

As per claim 26, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the shapes are generally evenly spaced along the length of the connecting path (Schuster: Abstract; figs. 9A-10B).

As per claim 27, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the shapes along the connecting path are the same (Schuster: figs. 9A-10B).

As per claim 29, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the shapes provide semantic meaning to the connector joining the visual objects (Gay: col. 6, lines 25-32).

As per claim 30, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a straight

line and wherein during the clipping, the straight line is traversed to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

As per claim 31, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a curved line and wherein during the clipping, the curved line is flattened and represented by a series of straight line segments, each straight line segment being traversed to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

As per claim 32, the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the connecting path is a self-loop and wherein during the clipping, the self-loop is traversed in clockwise and anti-clockwise directions to determine the locations where the connecting path intersects the peripheral boundaries of the source and destination visual objects (Harrington: col. 1, lines 40-56).

Claim 54 is similar in scope to claim 25 and is therefore rejected under similar rationale.

As per claim 55, the modified Gay teaches an object-connecting tool wherein the shapes are generally evenly spaced along the length of the connecting path (Schuster: Abstract; figs. 9A-10B).

Claim 63 is similar in scope to claim 27 and is therefore rejected under similar rationale.

Claim 65 is similar in scope to claim 29 and is therefore rejected under similar rationale.

7. Claims 28 and 64 rejected under 35 U.S.C. 103(a) as being unpatentable over Gay et al. ("Gay") in view of Harrington and Schuster et al. ("Schuster") as applied to claim 26, and further in view of Hansen et al. ("Hansen").

As per claim 28, although the modified Gay teaches a method of creating a connecting link between source and destination visual objects wherein the shapes along the connecting path are the same (Schuster: figs. 9A-10B), the modified Gay does not explicitly disclose the shapes along the connecting path to be different. Hansen teaches a method of creating a connecting link between source and destination visual object wherein shapes along the connecting path are different (fig. 4; col. 8, lines 9-15). It would have been obvious to an artisan at the time of the invention to incorporate the method of Hansen with the method of the modified Gay in order to provide users with an implementation preference.

Claim 64 is similar in scope to claim 28 and is therefore rejected under similar rationale.

Response to Arguments

8. Applicant's arguments filed 9/10/07 have been fully considered but they are not persuasive.

Applicant argued the following:

Each of the references, Gay, Harrington, Hansen and Schuster, taken individually does not teach determining a region interior of the peripheral boundary of each visual object to be joined and a connecting path extending between the determined regions, clipping each end of the connecting path terminates so that e the ends of the connecting path terminate where the connecting path intersects the peripheral boundary of the source and destination visual objects.

The Office disagrees for the following reasons:

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). While Harrington teaches clipping (col. 1, lines 22-56; *e.g. clipping line segments to display only the portion of interest to the user*), Gay teaches determining a region interior of the peripheral boundary of each visual object to be joined and a connecting path extending between the determined regions (fig. 6), the connecting path terminates at the locations where the connecting path intersects the source and destination visual objects and extending a connecting link between the source and destination visual objects terminating at the locations (fig. 6; *displayed is a connecting link between a source such as 78 and destination visual objects such as 76, the connecting link terminates at the locations where the connecting path intersects 78 and where the connecting path intersects 76; determining a region interior the peripheral boundary to connect the objects*).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquires

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached at (571) 272-4063.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lvn

Patent Examiner
November 19, 2007

/Steven P Sax/
Primary Examiner, Art Unit 2174